

#### **DETAILED ACTION**

1. This office action is response to Applicant's Remarks file on 08/13/2009.  
Claims 1, 6, 7 and 16 are amended.  
Claims 3-5, 11 and 15 are cancelled.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/13/2009 has been entered.

#### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Walter K. Robinson at (202) 295-4623 on 10/02/2009.

The application is amended as follows:

**Claim 7.** A radio controlled timepiece comprising:

a clocking unit configured to clock a time;

a display unit configured to display a time based on clock information from the clocking unit;

a receiving unit configured to receive standard radio waves from transmitting stations in at least two countries or regions;

a second-synchronization detecting unit configured to detect second-synchronization information from a demodulated signal obtained by the receiving unit, wherein the second-synchronization detecting step includes;

a sampling unit configured to sequentially or synchronously detect logic "1" or logic "0" of the demodulated signal at regular intervals; and

an adding unit configured to add up a number of times of detection of any one of the logic "1" and the logic "0" detected by the sampling unit,

a transmitting station determining unit configured to analyze the demodulated signal based on the second-synchronization information to determine a transmitting station in a country or a region; and

a decoding unit configured to decode information included in the standard radio wave from the transmitting station determined by the transmitting station determining unit to obtain time information, wherein

the clock information of the clocking unit is corrected based on the time information obtained by the decoding unit, and

the transmitting station determining unit is configured to determine the transmitting station in the country or region base on the result of addition by the adding unit in the second-synchronization detecting unit.

***Allowable Subject Matter***

4. The following is an examiner's statement of reasons for allowance:

Claims 1, 2, 6-10, 12-14 and 16 are allowed.

According to prior art record, **claim 1**. Ishii (US 6,728,533 B2) teaches a time correction method comprising:

a clocking unit configured to clock a time (Col. 3, lines 30-31 teach mobile phone contain clock 18),

a display unit configured to display a time based on clock information from the clocking step (Col.3, line 31),

a receiving unit configured to receive standard radio waves from transmitting stations in at least two countries or regions (Col. 3, lines 40-45 teach base station 1 and base station 2 transmitting in different regions time).

However, **Ishii alone or in combination fails to teach or suggest**

a second-synchronization detecting unit configured to detect second-synchronization information from a demodulated signal obtained by the receiving step, wherein the second-synchronization detecting step includes:

an edge detecting unit configured to sequentially or synchronously detect rising edges and falling edges of the demodulated signal; and

a synchronization determining unit configured to obtain the second-synchronization information of the demodulated signal based on the detected rising edges or the detected falling edges;

a transmitting station determining unit configured to analyze the demodulated signal based on the second-synchronization information to determine a transmitting station in a country or a region; and

a decoding unit configured to decode information included in the standard radio wave from the transmitting station determined by the transmitting station determining unit to obtain time information, wherein

the clock information of the clocking unit is corrected based on the time information obtained by the decoding unit.

**Claim 7.** Ishii (US 6,728,533 B2) teaches a radio controlled timepiece comprising,

a clocking unit configured to clock a time (Col. 3, lines 30-31 teach mobile phone contain clock 18);

a display unit configured to display a time based on clock information from the clocking unit (Col.3, line 31);

a receiving unit configured to receive standard radio waves from transmitting stations in at least two countries or regions (Col. 3, lines 40-45 teach base station 1 and base station 2 transmitting in different regions time).

However, **Ishii alone or in combination fails to teach or suggest**  
a second-synchronization detecting unit configured to detect second-  
synchronization information from a demodulated signal obtained by the receiving unit,  
wherein the second- synchronization detecting unit includes:

a sampling unit configured to detect logic "1" or logic "0" of the demodulated  
signal at regular intervals; and

an adding unit configured to add up a number of times of detection of  
any one of the logic "1" and the logic "0" detected by the sampling unit,

a transmitting station determining unit configured to analyze the demodulated  
signal based on the second-synchronization information to determine a transmitting  
station in a country or a region; and

a decoding unit configured to decode information included in a standard radio  
wave from the transmitting station determined by the transmitting station determining  
unit to obtain time information, wherein

the clock information of the clocking unit is corrected based on the time  
information obtained by the decoding unit, and

the transmitting station determining unit is configured to determine the  
transmitting station in the country or region based on a result of addition by the adding  
unit in the second- synchronization detecting unit.

**claim 16.** Ishii (US 6,728,533 B2) teaches a radio controlled timepiece,  
comprising:

a clocking unit configured to clock a time (Col. 3, lines 30-31 teach mobile phone contain clock 18);

a display unit configured to display a time based on clock information from the clocking unit (Col.3, line 31);

a receiving unit configured to receive standard radio waves from transmitting stations in at least two countries or regions (Col. 3, lines 40-45 teach base station 1 and base station 2 transmitting in different regions time).

However, **Ishii alone or in combination fails to teach or suggest**

a second-synchronization detecting unit configured to detect second-synchronization information from a demodulated signal obtained by the receiving unit, wherein the second-synchronization detecting unit includes:

a sampling unit configured to sequentially or synchronously detect rising edges and falling edges of the demodulated signal; and

an adding unit configured to add up a number of times of detection of the rising edges and falling edges of the demodulated signal;

a transmitting station determining unit configured to analyze the demodulated signal based on the second-synchronization information to determine a transmitting station in a country or a region; and

a decoding unit configured to decode information included in a standard radio wave from the transmitting station determined by the transmitting station determining unit to obtain time information, wherein

the clock information of the clocking unit is corrected based on the time information obtained by the decoding unit.

Claims 2, 6, 8-10, 12-14 are allow as being dependent on the independent claims of 1 and 16.

### ***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIET DOAN whose telephone number is (571)272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2617

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